



SURVEY AND MORPHOLOGICAL STUDY OF SOME OF THE MEMBERS OF ARACEAE JUSS. FAMILY FROM PARBHANI TAHASIL (M.S)

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ABSTRACT

Monocot family Araceae is known as Aroids or Arum family represented by 144 genera and 3645 species, cosmopolitane in occurrence in which some are endemic to particular region and most are cultivated as garden plants for campus beautification as they are with various morphological forms. The characteristic feature is presence of spadix type of inflorescence, variously coloured leaves and modified stem may be corm/rhizome/tubers. The present study was conducted for survey of Araceae family members from Parbhani, during acd.yr. 2022-23, surveys were made for collection of plants from various parts of parbhani tahasil. Collected plant specimens were identified with different floras and made into herbarium and deposited in Botany department herbarium, Shri. Shivaji College, Parbhani. Generas of Araceae identified are Aglaonema, Alocasia, Anthurium, Caladium, Colocasia, Diffenbachia, Monstera, Pistia, Philodendron, Syngonium, Spathiphyllum, Sauromatum and Typhonium. The current paper deals with morphological studies of some of the selected members of Araceae listed above.

KEYWORDS: Araceae, garden plants, Sauromatum, Typhonium

INTRODUCTION

Parbhani district lies between 18.45 and 20.10 North Latitudes and 76.13 and 77.39 East longitude. It as an average elevation of 347 meters, this district is uniformly laid by basaltic lava, it has tropical climate with hot summers and cold winter with cold winters. The physiographic conditions are suitable for diversified floristic elements. Vegetation survey is one of the most common method used to know about vegetation of that area. This information helps to know about floral components of a particular area. Araceae family is the 3rd largest family of Monocots with 144 genera and 3645 species (Boyce & Croat, 2011; Croat, 1979) from India 140 species belonging to 25 genera have been reported (Sharma O.P. 2015). This is oldest family of Angiosperm divided into eight subfamilies (Croat et. al 2019). Araceae members are cosmopolitane in occurrence, from Parbhani 13 genera are identified of which two genera are reported as new reports to the flora of Marathwada region includes Typhonium inopinatum Prain (M.D.Sonule et al 2019), Sauromatum venosum (AIT) Schott (G.H.Gore, R.S.Neel and A.S Bhuktar 2019).

Material And Method:

A number of field visits were arranged during Acd.Yr.2022-23 in all seasons for collection of Araceae Plant members. During this survey the plant specimens were collected and identified and confirmed by different floras like Flora of Marathwada Vol.II (Naik V.N.et al .1998), Flora of Presidency Of Bombay (Cook T 1903), The Flora of Tamilnadu Carnetic (K.M.athew(1983). Collected plants were deposited in herbarium of Department of Botany Shri.Shivaji College, Parbhani for ready reference.

Result and Discussion:

Araceae members are reported from aquatic to terrestrial habitat, they may be herbs, shrubs or vines with tuberous or rhizomatous or cormose stems. The leaves are simple, dorsiventral with parallel venation. The lamina may be lobed or entire or perforated. The inflorescence is spadix subtended by coloured spathe, containing unisexual male and female flowers at proximal and distal ends. The flowers are actinomorphic, sessile, hypogynous with a characteristic foul smell. The perianth consists of tepals in a series of 2+2 or 3+3 or 4+4 or may be absent (Apetalous)(Hooker J.D.1893). Stamens 1-12 may be 4/6 or 8 distinct. Gynoecium tricarpyllary syncarpous, ovary superior with ovules in basal or parietal placentation these are general characters of plants belonging to Araceae family members.

Morphological characters of some of the of Araceae members observed during survey cultivated as garden plants & as indoor plants are as follows -

1. Aglaonema commutatum Schott a perennial, herbaceous evergreen, erect plant with 1-1.5 feet height. Leaves simple, lanceolate, oblong, margin entire, evergreen 7-12 inches in length and 3-5 inches in diameter leaf color green or silver/grey, spirally born on the axis. Flowers white born on spadix covered by greenish white spathe. Fruit berry red color.
2. Caladium bicolor Aiton a Perennial, cormous herb with long petioled, variously coloured leaves. Inflorescence solitary, axillary persistent spathe. Spadix has basal female, middle neutral and upper male flowers. Any anatroous ovules in parietal placentation. fruit berry
3. Colocasia esculenta(L.) Schott a tall tuberous herbs with petiole length upto 2.5-3.5 feet long, sheathing at base, leaves cordate, ovate acute 45x30cm. Inflorescence spadix with peduncle shorter than petiole. Spathe long, basal elliptic, green. Spadix with many female flowers

4. Monstera deliciosa Lieber is a Split leaf, hemi epiphytic plant with aerial roots can grow upto 20-50 feet height. Leaves leathery, heart shaped 10-40 inches long and 10-25 inches broad. Leaves large, glossy pinnate. Inflorescence covered with cream-white velvety spathe. Spadix contains male and female flowers side by side favouring self pollination.
5. Pistia stratioides P.stratioides L. (Water Cabbage) aquatic member of Araceae. It is single species genus P. stratioides. It is a perennial plant floating on water with hanging submerged roots below leaves. Leaves are thick, parallel venation, obovate-obcuneate, densely pilose. The inflorescence is short peduncled, the spadix with one pistillate flower surrounded by 2-8 staminate flowers. The male and female flowers are separated by disc like structure. Fruit ovoid greenish berry.
6. Typhonium inopinatum Prain is a tuberous perennial herb with ovate/hastate leaves. Petioles long tinged with purple streaks. Inflorescence spadix with monoecious flowers. It has basal pistillate, middle sterile and terminal staminate flowers. Spathe encloses pistillate and sterile flowers. Fruit
7. Sauromatum venosum (Dryand. ex Aiton) It is a herbaceous plant with globose depressed tubers 3-4.5cm height; leaves solitary, pale green petioles 30-90 cm long, leaflets 9-17, gradually smaller towards distal end of Rachis, Middle leaflets large, oblong, oblanceolate 30.0 x 9.0 cm, Inflorescence solitary, appears before the emergence of leaf, peduncle greenish-white, 2.5-3cm long, spathe slightly constricted, 09-15cm long. Spadix above, equal to spathe or shorter than it. Stipe 1.5-2.0 cm long & 2.5 cm in diameter. Female flowers present at proximal end with 2-3x1.5 cm, central portion expanded, tapering at both sides. Male flowers at distal end white to yellow colored 1.5-2.5cm long, stamens yellow. Fruit - Berry

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